Amendments to the claims:

1.   (original) A search key construction system, comprising:

a plurality of search key sections, wherein each section is coupled to an output of a first multiplexer having a first programmable control;

a second multiplexer having a second programmable control and an output coupled to the first multiplexer; and

a third multiplexer having a third programmable control and an output coupled to the first multiplexer.

2.   (original) The search key construction system of claim 1, wherein:

the plurality of search key sections is configured to substantially form a search key for a memory bank.

3.   (original) The search key construction system of claim 1, wherein:

the first programmable control includes a key source select configured to enable one of a first type path, a second type path, and a third type path.

4.   (original) The search key construction system of claim 3, wherein:

the first type path includes one of a plurality of designated section positions from a packet header.

5.   (original) The search key construction system of claim 3, wherein:

the second type path includes a short field from a packet attribute.

6.   (original) The search key construction system of claim 5, wherein:

the short field includes a width of at most 16-bits.

7.   (original) The search key construction system of claim 3, wherein:

the third type path includes a long field from a packet header.

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8. (original) The search key construction system of claim 7, wherein:
the long field includes a width of at least 128-bits.

9. (original) The search key construction system of claim 1, wherein:
the second programmable control includes a short field selection signal.

10. (original) The search key construction system of claim 1, wherein:
the third programmable control includes a long field selection signal.

11. (original) The search key construction system of claim 1, wherein:
each of the plurality of search key sections is 16-bits wide.

12. (original) The search key construction system of claim 2, wherein:
the memory bank includes Ternary Content Addressable Memory (TCAM).

13. (original) The search key construction system of claim 2, wherein:
the memory bank includes Static Random Access Memory (SRAM).

14. (original) A method of constructing a search key, comprising the steps of:
programming bank key construction settings;
passing a first type programmed field to a key section if a first type path is enabled;
passing a second type programmed field to the key section if a second type path is enabled;
and
passing a third type field to the key section if the first type path and the second type path are both disabled.

15. (original) The method of constructing a search key of claim 14, wherein:
the first type path includes a long field from a packet header.

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16.   (original) The method of constructing a search key of claim 14, wherein:

the second type path includes a short field from a packet attribute.

17.   (original) The method of constructing a search key of claim 14, wherein:

the third type field includes one of a plurality of designated section positions from a

packet header.

18.   (original) A means for constructing a search key, comprising:

a means for programming bank key construction settings;

a means for passing a first type programmed field to a key section if a first type path is

enabled;

a means for passing a second type programmed field to the key section if a second type

path

is enabled; and

a means for passing a third type field to the key section if the first type path and the

second type path are both disabled.

Claim 19-29 (canceled)

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